<u>WHAT IS CLAIMED IS:</u>

1.   A method for transferring messages between a sending application program and a receiving application program across a distributed communication network, wherein the distributed communication network includes a message source coupled to a message destination, the method comprising:

     segmenting a message being received at the message source from the sending application program into a plurality of message segments while assigning a common message identifier and a unique sequence number to each of the message segments;

     transferring the message segments from the message source to the message destination along with the common message identifier and unique sequence numbers assigned to the message segments, with at least one of the message segments being transferred as the message is being received at the message source;

     assembling the message segments into a reassembled message as the message segments are received at the message destination; and

     delivering at least a portion of the reassembled message to the receiving application program while the assembling is occurring.

2.   The method of claim 1, further comprising during the transferring step, simultaneously transferring multiple copies of the message segments along with the assigned common message identifier and unique sequence number over alternate paths of the distributed communication network.

3.   The method of claim 1, further comprising during the segmenting step, segmenting a message into the message segments wherein each message segment is no more than 0.5 mega-bytes in size.

4.   The method of claim 1, further comprising during the segmenting step, encrypting and digitally signing each of the message segments and, during the assembling step, verifying the authenticity of each of the message segments.

5.   The method of claim 1, further comprising during the transferring step, transferring a message from a connector message source.

6.   The method of claim 1, further comprising during the segmenting step, segmenting a message that is greater than 1 giga-byte in size.

1   7.   The method of claim 1, further comprising during the segmenting step,

2   assigning a last segment attribute specifying whether the message segment is the last message

3   segment from a message to each of the message segments.

4

1   8.   The method of claim 1, wherein the transferring step includes

2   streaming message segments to the message destination as each of the plurality of message

3   segments becomes ready to be transferred.

1   9.   The method of claim 1, wherein the delivering step includes streaming

2   the reassembled message to the receiving application program as message segments are being

3   assembled.

           10.   A method for transferring messages between a sending application

1   program and a receiving application program across a distributed communication network,

2   wherein the distributed communication network includes a message source coupled to a

3   message destination, the method comprising:

4

5   segmenting a message being received at the message source from the sending

6   application program into a plurality of message segments while encrypting, digitally signing

7   and assigning a common message identifier and a unique sequence number to each of the

8   message segments;

9   transferring the encrypted and digitally signed message segments from the

10   message source to the message destination along with the common message identifier and

11   unique sequence numbers assigned to the message segments, at least one of the encrypted and

12   digitally signed message segments being transferred as the message is being received at the

13   message source;

14   verifying and assembling the message segments into a reassembled message as

15   the message segments are received at the message destination; and

16   delivering at least a portion of the reassembled message to the receiving

17   application while the assembling is occurring.

1   11.   The method of claim 10, further comprising during the transferring step,

2   simultaneously transferring multiple copies of the encrypted and digitally signed message

3   segments along with the assigned common message identifier and unique sequence numbers

4   over alternate paths of the distributed communication network.

1   12.   The method of claim 10, further comprising during the segmenting step,

2   assigning a last segment attribute specifying whether the message segment is the last message

3   segment from a message to each of the message segments.

4